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Sequence Listing was accepted.

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Reviewer: markspencer

Timestamp: Mon Oct 15 13:16:29 EDT 2007

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Application No: 10588734 Version No: 1.0

Input Set:

Output Set:

Started: 2007-09-25 16:27:36.540
Finished: 2007-09-25 16:27:38.117
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 577 ms
Total Warnings: 40
Total Errors: 0
No. of SeqIDs Defined: 40
Actual SeqID Count: 40

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2007-09-25 16:27:36.540
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Total Errors: 0
No. of SeqIDs Defined: 40
Actual SeqID Count: 40

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> KUFER, PETER
LENKKERI-SCHUTZ, ULLA
LUTTERBUSE, RALF
KOHLEISEN, BIRGIT

<120> LESS IMMUNOGENIC BINDING MOLECULES

<130> 028622-0155

<140> 10588734
<141> 2007-09-25

<150> PCT/EP05/001573
<151> 2005-02-16

<150> EP 04003445.6
<151> 2004-02-16

<160> 40

<170> PatentIn version 3.3

<210> 1
<211> 318
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
OKT3 light chain

<400> 1
gacatccaga tgaccaggc tccatcctcc ctgtctgcat ctgttaggaga cagagtcc 60
atcacttgca gtgcaaggc aagcgtaagc tacatgaatt ggtatcagca gacaccagg 120
aaaggcccta agagatggat ctatgacaca tccaaattgg cttctgggtt cccatcaagg 180
ttcagtggca gtggatctgg gacagattac actttcacca tcagcagtct gcaacctgaa 240
gatattgcaa cttactactg tcaacagtgg agtagtaacc cttttacttt tggccagggg 300
accaagctgc agatcacc 318

<210> 2

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
OKT3 VL

<400> 2

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu
65 70 75 80

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr
100 105

<210> 3
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3
agagcaagtt caagcgtaag ctacatgaat 30

<210> 4
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 4
Arg Ala Ser Ser Ser Val Ser Tyr Met Asn
1 5 10

<210> 5
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 5

gacacatcca aagtggcttc t

21

<210> 6

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 6

Asp Thr Ser Lys Val Ala Ser

1 5

<210> 7

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 7

caacagtgga gtagtaaccc tctcact

27

<210> 8

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 8

Gln Gln Trp Ser Ser Asn Pro Leu Thr

1 5

<210> 9

<211> 318

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic CD3 VL

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aaaggccctta agagatggat ctatgacaca tccaaagtgg cttctggggt cccatcaagg 180
ttcagtggca gtggatctgg gacagattac actttcacca tcagcagtct gcaacctgaa 240
gatattgcaa cttactactg tcaacagtgg agtagtaacc ctctcacttt tggccagggg 300
accaagctgc agatcacc 318

<210> 10
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
CD3 VL

<400> 10
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Val Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu
65 70 75 80

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr
100 105

<210> 11
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
CD3 VH

<400> 11

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tcctgttaagt cttctggata caccttcaact aggtatacga tgcaactgggt ccggccaggct 120
ccagggaagg ggctggagtg gattggatac ataaatccct a gccgtggta tactaattat 180
aatcagaagg tgaaggaccg attcaccatc tccagagaca actccaagaa cacggccctt 240
ctgcaaatgg acagcctgag acccgaggac acgggtgtgt atttctgtgc gagatattat 300
gatgatcatt actgccttga ctactggggc cagggcaccc cggtcaccgt ctccctca 357

<210> 12
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
CD3 VH

<400> 12
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Tyr Thr Phe Thr Arg Tyr
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Pro Val Thr Val Ser Ser
115

<210> 13
<211> 729
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

CD3 VH-VL

<400> 13

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ccaggaaagg ggctggagtg gattggatac ataaatccta gccgtggta tactaattat 180
aatcagaagg tgaaggaccg attcaccatc tccagagaca actccaagaa cacggccctt 240
ctgcaaatgg acagcctgag acccgaggac acgggtgtgt atttctgtgc gagatattat 300
gatgatcatt actgcctga ctattggggc cagggcaccc cggtcaccgt ctccctcagtc 360
gaaggtggaa gtggagggtc tggtggaaat ggagggtcag gtggagtggc cgacatccag 420
atgacccagt ctccatcctc cctgtctgca tctgttaggag acagagtac catcaactgc 480
agagcaaggta caagcgtaaat ctacatgaat tggtatcagc agacaccagg gaaagccct 540
aagagatgga tctatgacac atccaaatgt gcttctgggg tcccatcaag gttcagtgcc 600
agtggatctg ggacagatttta cactttcacc atcagcagtc tgcaacctga agatattgca 660
acttactact gtcaacagtg gagtagtaac cctctcaactt ttggccaggg gaccaagctg 720
cagatcacc 729

<210> 14

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

CD3 VH-VL

<400> 14

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Tyr Thr Phe Thr Arg Tyr
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Pro Val Thr Val Ser Ser Val Glu Gly Ser Gly Gly Ser Gly

115

120

125

Gly Ser Gly Gly Ser Gly Gly Val Asp Asp Ile Gln Met Thr Gln Ser
130 135 140

Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
145 150 155 160

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Thr Pro
165 170 175

Gly Lys Ala Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
180 185 190

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Thr Asp Tyr Thr
195 200 205

Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys
210 215 220

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu
225 230 235 240

Gln Ile Thr

<210> 15

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
CD19 VH

<400> 15

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tcctgcaagg cttctggcta tgcattcagt agctactgga tgaactgggt gaagcagagg 120
cctggacagg gtcttgagtg gattggacag atttggctg gagatggta tactaactac 180
aatggaaagt tcaagggtaa agccactctg actgcagacg aatcctccag cacagcc tac 240
atgcaactca gcagcctagc atctgaggac tctgcggctt atttctgtgc aagacgggag 300
actacgacgg taggcgtta ttactatgct atggactact ggggccaagg gaccacggtc 360
accgtctcct cc 372

<210> 16

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
CD19 VH

<400> 16

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr
20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Gln Ile Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Arg Arg Glu Thr Thr Val Gly Arg Tyr Tyr Tyr Ala Met Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 17

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
CD19 VL

<400> 17

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atctccctgca aggccagcca aagtgttgc tatgtatggt atagttattt gaactggtag 120
caacagattc caggacagcc acccaaactc ctcatctatg atgcatccaa tctagttct 180
gggatccac ccaggttttag tggcagtggt tctgggacag acttcacccct caacatccat 240
cctgtggaga aggtggatgc tgcaacctat cactgtcagc aaagtactga ggatccgtgg 300
acgttcgggt gagggaccaa gctcgagatc aaa 333

<210> 18
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
CD19 VL

<400> 18
Asp Ile Gln Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
20 25 30

Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro
50 55 60

Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65 70 75 80

Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 19
<211> 1504
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
anti-CD3

<400> 19
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gaactggta cAACAGATTc caggacagcc acccaaactc ctcatctatg atgcatccaa 180
tctagttct gggatcccac ccaggttag tggcagtggg tctgggacag acttcaccct 240
caacatccat cctgtggaga aggtggatgc tgcaacctat cactgtcagc aaagtactga 300
ggatccgtgg acgttccgtg gagggaccaa gctcgagatc aaaggtggtg gtggttctgg 360
cggccggccggc tccgggtgt gtggttctca ggtgcagctg cagcagtctg gggctgagct 420
ggtgaggccct gggtcctcag tgaagattc ctgcaaggct tctggctatg cattcaagtag 480
ctactggatg aactgggtga agcagaggcc tggacaggggt ctggagtggta ttggacagat 540

ttggcctgga gatggtgata ctaactacaa tggaaagtgc aagggtaaag ccactctgac 600
tgcagacgaa tcctccagca cagcctacat gcaactcagc agcttagcat ctgaggactc 660
tgcggcttat ttctgtgcaa gacgggagac tacgacggta ggcgttatt actatgtat 720
ggactactgg gcccaaggga ccacggtcac cgtctctcc ggaggtggtg gctcccagg 780
gcagctggg cagtctggg gaggcgtgg ccagcctggg aggtccctga gactctctg 840
taagtcttct ggatacacct tcacttaggtt tacgtgcac tgggtccgcc aggctccagg 900
gaaggggctg gagtggattt gatacataaa tcctaggctt ggttatacta attataatca 960
gaagggtgaag gaccgattca ccatctccag agacaactcc aagaacacgg cctttctgca 1020
aatggacagc ctgagacccg aggacacggg tgtgtatttc tgtgcgagat attatgtga 1080
tcattactgc cttgactatt gggccaggc caccggcgtt accgtctcct cagtcgaagg 1140
tggaaagtggta gggtctggg gaagtggagg ttcaggtggta gtggacgaca tccagatgac 1200
ccagtcctcca tcctccctgt ctgcattctgtt aggagacaga gtcaccatca cttgcagagc 1260
aagttcaagc gtaagctaca tgaattggta tcagcagaca ccagggaaag cccctaagag 1320
atggatctat gacacatcca aagtggcttc tggggtccc tcaagggttca gtggcagtgg 1380
atctgggaca gattacactt tcaccatca gactctgcaaa cctgaagata ttgcaactta 1440
ctactgtcaa cagtggagta gtaaccctct cactttggc caggggacca agctgcagat 1500
cacc 1504

<210> 20
<211> 498
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
anti-CD3

<400> 20
Asp Ile Gln Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
20 25 30

Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro
50 55 60

Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65 70 75 80

Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Gly
100 105 110

Gly Gly Gly Ser Gly Gly Ser Gly Gly Ser Gln Val
115 120 125

Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser Ser Val
130 135 140

Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr Trp Met
145 150 155 160

Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Gln
165 170 175

Ile Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly
180 185 190

Lys Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr Met Gln
195 200 205

Leu Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg
210